UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,112	05/24/2001	Marc Robidas	SYCS-014	3043

959	7590	03/24/2005	

LAHIVE & COCKFIELD, LLP.
28 STATE STREET
BOSTON, MA 02109

EXAMINER
VINCENT, DAVID ROBERT

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
	09/865,112	ROBIDAS ET AL.
Office Action Summary	Examiner	Art Unit
	David R Vincent	2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-21* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____ .

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

Claim Objections

1.   Claims 19-21 are objected to because of the following

informalities: claim 19 line 4, specifies "first" and it should

specify second. See e.g., claim 21, line 2. Appropriate

correction is required.

Background Material

The examiner takes official notice the following is merely

well know details of routing. In a L-S protocol a router does

not exchange distances with its neighbors. Instead, each router

actively tests the status of its link to each of its neighbors.

Then it sends this data to its other neighbors, which then

propagate it throughout the autonomous system. Each router

takes this L-S information and builds a complete routing table.

This is how topology discovery is performed when using a L-S

protocol. The L-S protocols will always converge/stabilize

faster than D-V protocols after something changes. When using a

L-S algorithm, all routers will have identical routing databases

(DBs), each DB will describe the complete topology, and each

router can use its DB to derive the shortest paths to all

destinations, possibly using the Dijkstra least-cost algorithm.

Two protocols, which use a L-S algorithm, are OSPF and IS-IS.

OSPF: Open Shortest Path First

The OSPF protocol was based on the early version of the IS-

IS protocol and is a L-S protocol, which operates directly over

IP. It does not use TCP or UDP. OSPF has its own value for the

protocol field in the IP header. It can calculate a separate
set of routes for each IP type-of-service (TOS). This means
that for any destination there can be multiple routing table
entries. Each interface is assigned a dimensionless cost. This
can be assigned based on throughput, round trip time,
reliability, or whatever. When several routes have the same
cost, OSPF can perform *load balancing* (distributing traffic
equally among the routes). OSPF supports subnets and using
masks. When using OSPF, point to point links between routers do
not need an IP address at each end, authentication and cleartext
passwords can be used, and multicasting instead of broadcasting
can be used. Some of the biggest differences between OSPF and
RIP are that due to the L-S algorithm, all routers will end up
with identical routing tables, it will be loop free, and there
will be a fast response to topology changes.

IS-IS: Intermediate System to Intermediate System

IS-IS is the OSI standard IGP. It is used for routing CLNP
(connectionless network protocol) packets. CLNP is an OSI
protocol, which is similar to IP. IS-IS and OSPF are similar.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs
of 35 U.S.C. 102 that form the basis for the rejections under
this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5-11, 13-15, 19-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Wing So (US 2002/0109879).

As shown in Figs. 1-5, 18, 21-22, 37-38, 44-49 Wing discloses peer discovery (sections 95; 190; 234-5, 341, 365), between optical (Fig. 18; e.g., 282, 297, 362) nodes, connecting optical nodes, with at least two trunks (sections 138; 414, 437), sending a packet including an ID (e.g., IP, sections 361; SONET or ATM packet headers or sections 169-170; 255, 327), using an in-band control channel (sections 136, 338, 451-2, 512, 604, 631, 636), having packet originate from a management controller (Fig. 5; commands from router, section 272; using control planes, sections 366, 383, 392-397, 408-410) or a port interface card (sections 174, 272, 574, 578), using an ID such as a router ID (sections 269, 943-4) or port number (e.g., sections 174, 574, 578), using an optical routing parameter (ATM VPI/VCI; light path ID, sections 255, 294, 331) including a VPN (ATM VPI/VCI; virtual fiber, section 294) or an OSPF ID (sections 100; 341, 605), forming a tunnel (secure path, Fig.

18; security, section 265; leasing optical paths, section 297,

366), and using IP packets (Fig. 22; e.g., sections 620, 632)

and SONET (Fig. 21; e.g., sections 566, 780), as specified in

claims 1-3, 5-11, 13-15, 19-21.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in this

Office action:

> (a) A patent may not be obtained though the invention is not identically
> disclosed or described as set forth in section 102 of this title, if the
> differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the
> art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

2.   Claims 4, 12, 16-18 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Wing as set forth above.

Although Wing failed to particularly call for a trunk

manager module (not further defined in the claims) on the

controller (not further defined in the claims), it is obvious

that because Wing discloses performance monitoring and managing

(sections 285, 297), OSPF topology discovery (section 341),

network management (section 939), and using control planes

(sections, 382, 392-397, 408-410) wherein the components of the

control plane can be modules (section 397) that manager modules

(software, subroutines, etc.) such as one disclosed as

performing routing, monitoring, or managing could be on the controller (running on top of the control plane) or part of the controlling software because Wing discloses extensive network management, routing software and combining programs would make unit more flexible and have more options.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David R Vincent whose telephone number is 571 272 3080. The examiner can normally be reached on M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571 272 3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DAVID VINCENT
PRIMARY EXAMINER

David R Vincent
Primary Examiner
Art Unit 2661

March 17, 2005